DNV·GL

Certificate No:
**TAA000014Y**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Personal Computer**

with type designation(s)
**Marine Panel PC 15”/19”/24”/26” Flat PCAP Touchscreen**

Issued to
**WinMate Inc.**
**New Taipei City, Taiwan**

is found to comply with
**IEC 60945 Ed. 4 (2002-08) Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results**
**DNV GL rules for classification – Ships**

## Application :

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

| | |
|---|---|
| **Temperature** | **B** |
| **Humidity** | **A** |
| **Vibration** | **A** |
| **EMC** | **B** |
| **Enclosure** | **IP 66 (front panel)** |

Issued at **Hamburg** on **2017-04-07**

This Certificate is valid until **2022-04-06**.
DNV GL local station: **Kaohsiung**

Approval Engineer: **Andrea Grün**

Digitally Signed By: Rinkel, Marco
for **DNV GL**
Signing Date: 2017-04-10
Location: Hamburg - On behalf of

**Joannis Papanuskas**
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Job Id: **262.1-021618-1**
Certificate No: **TAA000014Y**

## Product description

Marine Panel PC 15”/19”/24”/26” PCAP touch screen, Intel 5th ® Generation Core™ i5-5200U 2.2GHz

| **Model** | **Type Designation** |
|---|---|
| R15IH3S-MRYYYY | 15” Marine Panel PC |
| R19IH3S-MRYYYY | 19” Marine Panel PC |
| W24IH3S-MRYYYY | 24” Marine Panel PC |
| W26IH3S-MRYYYY | 26” Marine Panel PC |

Marine Display 15”/19”/24”/26” Flat PCAP Touchscreen

| **Model** | **Type Designation** |
|---|---|
| R15LXXX-MRYYYY | 15” Marine Display |
| R19LXXX-MRYYYY | 19” Marine Display |
| W24LXXX-MRYYYY | 24” Marine Display |
| W26LXXX-MRYYYY | 26” Marine Display |

| | | |
|---|---|---|
| XXX = | 0~9 | base on product size and panel size of LCD |
| YYYY= | A~Z,a~z,0~9,"-" | Blank or Slash for marketing purpose only, no impact safety related constructions or critical components |

## Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

**Product certificate**

Each delivery of the application system is to be certified according to Pt.4 Ch.9 Sec.1. The certification test is to be performed at the manufacturer of the application system according to an approved test program before the system is shipped to the yard. After the certification the clause for application software control will be put into force.

**Clause for application software control**

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV GL for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

**Compass safe distances for all models:**

- Standard Compass Safe Distance: 115 cm
- Steering Compass Safe Distance: 80 cm

## Type Approval documentation

Test Reports:

| | | |
|---|---|---|
| • 16-08-VAA-108 | | dated 26-09-2016 |
| • 16-08-BAD-017-01L | | dated 08-08-2016 |
| • E1/2016/70121 | Rev. 00 | dated 29-09-2016 |
| • 16-05-EAT-009-E00 | | dated 03-09-2016 |
| • VS-V-050705-01 | | dated 05-07-2016 |
| • 160216001C | | dated 14-07-2016 |

Users Manual:

Document Part Number: 9152111I102B

for Models

| | |
|---|---|
| R15L600-MRA3FP | Version 1.1 |
| R19L300-MRA1FP | Version 1.1 |
| W24L100-MRA1FP | Version 1.1 |
| W26L100-MRA1FP | Version 1.1 |

Document Part Number: 9152111I102A
for Models

| | |
|---|---|
| R15IH3S-MRA3FP | Version 1.1 |
| R19IH3S-MRA1FP | Version 1.1 |
| W24IH3S-MRA1FP | Version 1.1 |
| W26IH3S-MRA1FP | Version 1.1 |

Data Sheets:

| | |
|---|---|
| 15" Flat P-CAP Marine Panel PC: | |
| Model No. R15IH3S-MRA3FP | dated 17-03-2017 V1.6 |
| Model No. R15L600-MRA3FP | dated 17-03-2017 V1.7 |
| 19" Flat P-CAP Marine Panel PC | |
| Model No. R19IH3S-MRA1FP | dated 17-03-2017 V1.5 |
| Model No. R19L300-MRA1FP | dated 17-03-2017 V1.5 |
| 24" Flat P-CAP Marine Panel PC | |
| Model No. W24IH3S-MRA1FP | dated 17-03-2017 V1.5 |
| Model No. W24L100-MRA1FP | dated 17-03-2017 V1.4 |
| 26" Flat P-CAP Marine Panel PC | |
| Model No. W26IH3S-MRA1FP | dated 17-03-2017 V1.4 |
| Model No. W26L100-MRA1FP | dated 17-03-2017 V1.5 |

## Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, November 2016, also covering IACS Unified Requirements E10.
Tested as protected equipment according to relevant parts of IEC 60945, 4th edition. For the bridge mounted components the 'Acoustic noise and signals' and the 'Compass safe distance' were measured according to sections 11.1 and 11.2 of IEC 60945, 4th edition (2002).

## Marking of product

The products to be marked with:

- Manufacturer name
- Model name
- Serial number

## Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE